

ABSTRACT OF THE DISCLOSURE

A self-locking linear adjustment mechanism may be configured in the form of a rod assembly or a cartridge assembly. The self-locking linear adjustment mechanism in the form of a cartridge assembly includes a self-locking linear adjustment mechanism including a locking tumbler, an adjustment vernier, two end adapters, two roll pins, two precision balls, two locking skirts, two springs, two locking splines, two index pins, and two guide shafts, wherein the self-locking linear adjustment mechanism has a dual function self-locking feature.